

A NEW SPECIES OF *BRACHYCOME* (ASTERACEAE) FROM THE LAKE EYRE REGION, SOUTH AUSTRALIA

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Abstract

A new *Brachycome*, *B. coongiensis*, is described from the Lake Eyre Region, South Australia. A detailed description of the species is supplemented by a sketch; affinities and distribution are considered.

Introduction

Since the recently published account of the genus *Brachycome* in South Australia (Cooke, 1986), a new species of the genus from the Lake Eyre Region has come to hand. Attempts have been made to identify it with the help of a "revision of the genus *Brachycome*" by G.L. Davis (1948) and D.A. Cooke (1986). In both publications the key to the species identified these collections as close to *B. basaltica* F. Muell. The key to the species by Cooke (1986) also leads close to *B. trachycarpa* F. Muell. The new material, however, did not agree with these or any other species of the genus. After examination of the types of *B. basaltica* and *B. trachycarpa*, and comparing the new material with authentic collections of other *Brachycome* species, the new material is found to be an undescribed new taxon. It is, therefore, being described here as a new species, *Brachycome coongiensis*. In order to show briefly the similarities and differences between *B. coongiensis* and its nearest allies, a short key to the species, modified from D.A. Cooke (1986), is presented here:

- (1) a. Plants with widely spreading stolons *B. graminea* & allied species
- b. Plants without stolons 2.
- (2) a. Leaves mostly basal and near-basal; peduncles occupying more than half the length of the stems *B. diversifolia* & allied species
- b. Leaves mostly cauline; peduncles occupying less than half the total length of the stems 3.
- (3) a. Achenes with smooth surfaces *B. parvula* & allied species
- b. Achenes with tuberculate surfaces 4.
- (4) a. Undershrubs with stems woody near ground level *B. trachycarpa* & allied species
- b. Annual or perennial herbs 5.
- (5) a. Leaves ovate, obovate or oblanceolate to cuneate, distinctly toothed at least near the tip *B. goniocarpa* & allied species
- b. Leaves linear-lanceolate to narrowly oblanceolate, entire or the lower sometimes with a few small linear lobes or teeth 6.
- (6) a. Stems woody near ground level; peduncles with scattered glandular hairs; leaves entire or the lower with a few small linear lobes or teeth; pappus a minute ring or connate teeth *B. trachycarpa*
- b. Stems herbaceous, with or without underground rhizome; peduncles glabrous, sometimes with sessile glands; leaves entire; pappus papillose, reduced to a microscopic rim.
- (7) a. Perennial herb with an underground rhizome; achenes with minute tubercles all over on each surface; tubercles in 3-5 longitudinal rows *B. basaltica*
- b. Annual herb, without underground rhizome; achenes with distinct tubercles in a single longitudinal central row on each surface *B. coongiensis*



Fig. 1. *Brachycome coongiensis*. A, habit sketch of the type specimen; B, capitulum; C, anther showing connective produced beyond the pollen-sacs; D, achene showing tubercles in a single longitudinal line along the middle; E, lateral view of achene showing single longitudinal row of tubercles on each surface; F, *B. basaltica* achene showing tubercles all over the surface; G, *B. trachycarpa* achene showing tubercles and glandular ("hooked") hairs. (A-E, J. Reid 1183: AD, holotype; F, H. Eichler 15677: AD; G, J.Z. Weber 6594B: AD).

Brachycome coongiensis Munir, sp. nov.

Herba annua ad 35 cm alta. *Caulis* solitarius vel aliquot a base exorientes erecti ramosi glabri striati. *Folia* caulina ramicolaeque sessilia lineari-lanceolata usque oblanceolata integra glabra 2-7 cm longa 0.5-1 cm lata; folia basalia versus basem longiattenuata mox marcescentia; folia caulina ramicolaeque lata et adbasim fere amplexicaulia ad basim apparenter semidecurrentia. *Capitulum* 5-8 mm diam.; pedunculi in corymbis laxis dispositi aphylli vel 1 vel 2 foliis diminutis glabri striati 2.5-10 cm longi; receptaculum convexum leviter foveatum 1.5-2.5 mm diam. *Bractee involucales* 18-20 oblongae usque obovatae acutae 3-5 mm longae 1-2 mm latae intra glabrae extra minute glanduloso-puberulae virides apicibus marginibusque scariosis. *Flosculi radii* 25-32; ligulae oblongae 3-4 mm longae c. 1 mm latae pallide violaceae usque albae. *Antherae* appendiculis terminalibus. *Achenia* cuneata plus minusve complanata atrobrunnea 1-1.5 mm longa c. 1 mm lata glabra distincte tuberculata secus medium superficiei quaeque; tubercula plus minusve U-forma cristam singularem longitudinalem formantia; pappus papillosus ad cristam microscopica reducia.

Type: J. Reid 1183, Coongie, Lake Eyre Region, 27°10'S 140°09'E, South Australia, 1.ix.1987 (AD, holotype; AD, BRI, MEL, NSW — isotypes).

Description (Fig. 1)

Annual herb to 35 cm high. *Stem* solitary or a few arising from the base, erect, branched, glabrous, striate. *Leaves* cauline and ramal, sessile, linear-lanceolate to oblanceolate, entire, glabrous, 2-7 cm long, 0.5-1 cm wide; basal leaves long-attenuate towards the base, soon withering; cauline and ramal leaves broad and almost amplexicaul at the base, apparently semi-decurrent. *Capitulum* 5-8 mm diam.; peduncles in loose corymbs, leafless or with 1 or 2 reduced leaves, glabrous, striate, 2.5-10 cm long; receptacle convex, slightly pitted, 1.5-2.5 mm diam. *Involucreal bracts* 18-20, oblong to obovate, acute, 3-5 mm long, 1-2 mm wide, glabrous inside, minutely glandular-puberulus outside, green with scarious apices and margins. *Ray florets* 25-32; ligules oblong, 3-4 mm long, c. 1 mm wide, pale-violet to white. *Anthers* with terminal appendages. *Achenes* cuneate, more or less flattened, dark-brown, 1-1.5 mm long, c. 1 mm wide, glabrous, distinctly tuberculate along the middle of each surface; tubercles \pm U-shaped, forming a single longitudinal ridge along the middle; pappus papillose, reduced to a microscopic rim.

Specimens examined

SOUTH AUSTRALIA: Lake Eyre Region: Conrick 2255, Innamincka Station, 4.xi.1987 (AD, K); C. O'Malley 229, Coongie Lake, 25.i.1987 (AD); J. Reid 1142, 2 km south of Coongie, 15.ix.1987 (AD, NT, PERTH); J. Reid 1147, Embarka Swamp, 11.ix.1987 (AD); J. Reid 1183, Coongie, 1.ix.1987 (AD, holotype; AD, BRI, MEL, NSW).

Distribution (Map 1)

B. coongiensis seems confined to the far north-eastern corner of South Australia. So far it has been recorded only from the area around Coongie Homestead in the Lake Eyre Basin.

Affinities

In view of the anther connective being produced beyond the pollen-sac, *B. coongiensis* is referred here to the subgenus *Eubrachycome*. Within the subgenus, *B. coongiensis* is nearest to *B. basaltica* from which it can easily be distinguished by its herbaceous habit and the much more distinct tubercles arranged in a single longitudinal row on each surface of the achene. In *B. basaltica*, the achenes have small tubercles not much raised above the surface and occupying almost the entire surface except the marginal ridges. Moreover, *B. basaltica* is known to occur only in the south-eastern and Murray region in South Australia.

There are several characters common to *B. coongiensis* and *B. trachycarpa*. The latter, however, is a woody perennial with glandular hairy stems and peduncles, and achene surface tuberculate with glandular ("hooked") hairs. So far, *B. trachycarpa* has not been found north of the Gairdner-Torrens and Flinders Ranges regions in South Australia.



Map 1. Distribution of *Brachycome coongiensis*.

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References

- Davis, G.L. (1948). Revision of the genus *Brachycome* Cass. Part I. Australian species. *Proc. Linn. Soc. N.S.W.* 73: 142-241.
Cooke, D.A. (1986). *Brachycome*. In J.P. Jessop & H.R. Toelken, "Flora of South Australia" 3: 1445-1458. (Govt Printer: Adelaide).